

# MV-22 OSPREY

## DESCRIPTION

The MV-22 Osprey tiltrotor is a revolutionary, advanced-technology vertical/short takeoff and landing, multi-purpose tactical aircraft that will replace the current fleet of Vietnam-war era CH-46E and CH-53D aircraft. The MV-22 is vital to the execution of EMW. Specific missions include expeditionary assault, raid operations, medium cargo lift, tactical recovery of aircraft and personnel, fleet logistic support, and special warfare. Procurement of the MV-22 remains the Corps' number one aviation acquisition priority.

The MV-22 incorporates composite materials, fly-by-wire flight controls, digital cockpits, airfoil design, and manufacturing. It is capable of carrying 24 combat-equipped Marines or a 10,000-lb. external load, and has a strategic self-deployment capability by virtue of its 2,100-nautical mile range with a single aerial refueling. The MV-22's 38-foot prop-rotor system and engine/transmission nacelle mounted on each wing tip allow it to operate as a helicopter for takeoff and landing. Once airborne, the nacelles rotate forward 90 degrees, converting the MV-22 into a high-speed, high-altitude, fuel-efficient turbo-prop aircraft.

## OPERATIONAL IMPACT

The MV-22 will be the cornerstone of

Marine Corps' assault support possessing the speed, endurance, and survivability needed to fight and win on tomorrow's battlefield. This combat multiplier represents a quantum improvement in strategic mobility and tactical flexibility for expeditionary and prepositioned maritime forces.

## PROGRAM STATUS

Flight-testing resumed in May 2002 to address the aeromechanical issues raised in the aftermath of the two V-22 mishaps in 2000. This will include the most extensive testing of helicopter flight phenomena ever undertaken and amass an additional 1,800 flight-test hours. Included in the testing process is a rigorous, strictly regimented inspection process to verify and validate all of the modifications and clearances. MV-22 aircraft will be produced in three blocks:

**Block A** series aircraft include a software enhancement and nacelle reconfiguration plus additional reliability and maintainability (R&M) improvements.

**Block B** series aircraft provide further improvements in effectiveness and suitability for operators and maintainers to include improved access to the nacelle for inspection purposes and substantial R&M improvements.

**Block C** configuration incorporates mission enhancements



### CUREMENT PROFILE: FY04 FY05

Quantity:	9	8
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### DEVELOPER/MANUFACTURER:

Bell Helicopter Textron, Fort Worth, TX  
The Boeing Company, Philadelphia, PA